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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,293	03/23/2007	Yannick Gerard	295641US6PCT	9222

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EXAMINER
EDWARDS, BRETT J

ART UNIT	PAPER NUMBER
3781	

NOTIFICATION DATE	DELIVERY MODE
03/17/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/591,293	GERARD ET AL.	
	Examiner	Art Unit	
	Brett Edwards	3781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-18 and 20-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-18 and 20-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendments filed on 12/29/2009 have been accepted. Claims 11-18 and 20-28 are currently pending in the application.

In light of the amendments, the objections to the claims presented in the prior Office action have been withdrawn.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 11-13, 16-18, 21, 22, 24-26 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Muirhead (US 6661339).

As to claim 11, Muirhead discloses a system for fastening, by welding, a component to a motor vehicle fuel tank, the system comprising: a component (104) including a portion with a conical surface profile, a tank with an opening (120), a perimeter of which opening includes has a conical surface profile; and a welded area (112) between at least one portion of the conical surface of the perimeter of the opening in the tank and at least one portion of the conical surface of the component, wherein the perimeter of the opening of the tank is a deformed portion of a wall of the tank, and wherein the component and the tank

are molded in one or more molds (102) including impressions corresponding to the conical surfaces (Fig. 10, 11 and 13; Col. 10, line 41 – Col. 11, line 1).

The presence of process limitations on product claims, wherein the product does not otherwise patentably distinguish over the prior art, cannot impart patentability to the product. In re Stephens 145 USPQ 656 (CCPA 1965). Therefore, the limitation of the tank and component being molded in one or more molds including impressions corresponding to the conical surfaces has not been given patentable weight.

As to Claim 12, Muirhead discloses the fastening system according to Claim 11, wherein the tank and the component comprise one or more plastics (Col. 11, ll. 9-14).

As to Claim 13, Muirhead discloses the fastening system according to Claim 12, wherein at least one of the two components includes a multilayer structure that includes a layer of a barrier material (Col. 11, ll. 9-14).

As to Claim 16, Muirhead discloses the fastening system according to Claim 11, wherein the component is chosen from a plate, a delivery tube, a fitting, a spout, a valve, or any other accessory of the fuel tank (Fig. 13; Col. 11, ll. 41-47).

In regard to Claim 17, the presence of process limitations on product claims, wherein the product does not otherwise patentably distinguish over the prior art, cannot impart patentability to the product. In re Stephens 145 USPQ 656 (CCPA 1965). As such, Muirhead discloses a fuel system comprising a fuel

tank and at least one accessory (104) (Fig. 10, 11 and 13; Col. 10, line 41 – Col. 11, line 1).

As to Claim 21, Muirhead discloses the fastening system according to Claim 11, wherein the wall of the tank includes a bent portion defining the perimeter of the opening of the tank (Fig. 11 and 13).

As to Claim 22, Muirhead discloses the fastening system according to Claim 21, wherein the conical surface of the perimeter of the opening in the tank comprises a cavity that receives the conical surface profile of the component (Fig. 11 and 13).

As to Claim 24, Muirhead discloses the fastening system according to Claim 2 l, wherein the thickness of a wall portion of the tank forming the conical surface of the tank is a same thickness as a thickness of a wall portion of the tank surrounding the conical surface of the tank (Fig. 11 and 13).

As to Claim 18, Muirhead discloses a method of manufacturing a fuel system, comprising: manufacturing a tank comprising an opening (120), a perimeter of which has a conical surface profile, the perimeter of the opening being made by deforming a wall of the tank; manufacturing a component (104) including a part with a conical surface profile; and welding at least one portion of the conical surface of the perimeter of the opening in the tank to at least one portion of the conical surface of the component, and wherein the tank and the component are manufactured by molding by using one or more molds (102)

including impressions corresponding to the conical surfaces (Fig. 10, 11 and 13; Col. 10, line 41 – Col. 11, line 1).

As to Claim 25, Muirhead discloses the fastening system according to Claim 18, wherein the wall of the tank includes a bent portion defining the perimeter of the opening of the tank (Fig. 11 and 13).

As to Claim 26, Muirhead discloses the fastening system according to Claim 25, wherein the conical surface of the perimeter of the opening in the tank comprises a cavity that receives the conical surface profile of the component (Fig. 11 and 13).

As to Claim 28, Muirhead discloses the fastening system according to Claim 25, wherein the thickness of a wall portion of the tank forming the conical surface of the tank is a same thickness as a thickness of a wall portion of the tank surrounding the conical surface of the tank (Fig. 11 and 13).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muirhead in view of Ries et al. (US PG Pub 20030124281, of record; hereinafter Ries).

As to Claim 14, Muirhead discloses the fastening system according to Claim 13. Muirhead does not expressly disclose the component includes a

multilayer structure and, at a point where the first component is fastened to the second component, a number of superposed layers is at most equal to a sum of a number of layers in the first component and a number of layers in the second component.

However, Ries discloses a component (6) having a portion with a conical surface profile attached to a fuel tank (10) comprising an opening, a perimeter of which has a conical surface profile, wherein the component includes a multilayer structure and, at a point where the component is fastened to the tank, a number of superposed layers is at most equal to a sum of a number of layers in the first component and a number of layers in the fuel tank (Fig. 1 and 2; Par. 0038-0039, 0048, 0049 and 0059). Ries discloses the multilayer structure of the component helps prevent diffusion of fuel (Par. 0048, 0049).

Therefore, at the time of invention it would have been obvious to one of ordinary skill in the art to modify the fastening system taught by Muirhead so as to form the component from a multilayer structure and, at a point where the component is fastened to the tank, a number of superposed layers is at most equal to a sum of a number of layers in the first component and a number of layers in the fuel tank, as taught by Ries, in order to help prevent diffusion of fuel.

As to Claim 15, Muirhead and Ries disclose the fastening system according to Claim 14. Muirhead further discloses wherein the multilayer structure includes at least two layers of high-density polyethylene (210) between

which a layer made of an ethylene/vinyl alcohol copolymer (202) is inserted (Fig. 3 and 12; Col. 7, ll. 12-19, 27-33, 48-56; Col. 8, ll. 18-29).

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muirhead in view of Abare et al. (US 6627016, of record; hereinafter Abare).

As to Claim 20, Muirhead discloses the method according to Claim 18. Muirhead does not expressly disclose the welding is hot-plate welding using self-centering hot plates or a robotic system controlled by a camera.

However, Abare discloses a molded fuel tank (1) with a plurality of components (4, 5, 6, 7), wherein the welding done on the tank is hot-plate welding using a robotic system with optical and laser scanning (Fig. 1; Col. 4, ll. 13-17; Col. 4, line 62 - Col. 5, line 19). Abare discloses the robotic system allows increased accuracy and repeatability of the manufacturing processes by making adaptive changes during the welding process to compensate for variations in the fuel tanks due to an inherent drawback of the molding process (Col. 3, ll. 60-65).

Therefore, at the time of invention it would have been obvious to one of ordinary skill in the art to use hot-plate welding robots with optical and laser scanning, as taught by Abare, to form the fuel tank taught by Muirhead in order to provide for increased accuracy and repeatability in the manufacturing process.

6. Claims 23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muirhead in view of Goto et al. (US 20020017527, hereinafter Goto).

As to Claims 23 and 27, Muirhead discloses the fastening system according to Claims 21 and 25, respectively. Muirhead does not expressly disclose the conical surface of the perimeter of the opening in the tank protrudes from a portion of the tank wall in a direction toward the component.

However, Goto discloses a component (2) integrally formed with a multilayer fuel tank (1), the fuel tank having an opening (1h), wherein a perimeter of the opening protrudes from a portion of the tank wall in a direction toward the component in order to allow for the attachment of internally treaded accessories (5) (Fig. 1, 2 and 4-9; Par. 0038, 0039 and 0042).

Therefore at the time of invention it would have been obvious to one of ordinary skill in the art to modify the fastening system taught by Muirhead so as to form the conical surface of the perimeter of the opening in the tank protrudes from a portion of the tank wall in a direction toward the component, as taught by Goto, in order to allow for the attachment of already existing, internally threaded accessories.

Response to Arguments

7. Applicant's arguments with respect to claims 11 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Aoki et al. (US 20020121517) disclose a resin fuel tank with a component welded thereto.

b. Gerard et al. (US 7513379) disclose a multilayer resin fuel tank with a protruding conical portion for attachment of a component.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brett Edwards whose telephone number is (571)270-1443. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571)272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. E./
Examiner, Art Unit 3781

/Anthony Stashick/
Supervisory Patent Examiner, Art Unit 3781